



Maintenance & Reliability Management

Certificate in Preventive and Predictive Maintenance (CPPM)

Course Introduction

The Certificate in Preventive and Predictive Maintenance (CPPM) focuses on equipping professionals with the knowledge and tools to implement and manage effective maintenance programs. Preventive and predictive maintenance strategies play a critical role in extending the life of assets, reducing downtime, and optimizing operational efficiency. The CPPM certification helps participants enhance their skills to proactively identify and address maintenance needs, leading to better management of assets and improved organizational performance.

This training program provides a comprehensive overview of both preventive and predictive maintenance techniques, including how to implement them in real-world scenarios. Participants will learn how to create maintenance schedules, use advanced technologies like sensors and AI, and integrate these strategies into broader operational systems.

Target Audience

This course is designed for maintenance managers, engineers, technicians, and anyone responsible for implementing or managing preventive and predictive maintenance programs within an organization.

Learning Objectives

- Understand the concepts and benefits of preventive and predictive maintenance.
- Learn how to develop and implement effective preventive maintenance programs.
- Gain knowledge of predictive maintenance technologies and their applications.
- Learn how to integrate PM and PdM strategies into existing operations.

- Understand how to monitor, evaluate, and improve maintenance programs for better performance.

Course Outline

• 01 DAY ONE

Introduction to Preventive and Predictive Maintenance

- What is preventive maintenance (PM) and predictive maintenance (PdM)?
- Key differences between PM and PdM
- The role of maintenance in asset management and reliability
- Benefits of PM and PdM for reducing downtime and improving equipment life
- Common maintenance strategies used in industries
- Importance of scheduling and regular checks in preventive maintenance
- How predictive maintenance helps in forecasting failures and minimizing unexpected repairs

• 02 DAY TWO

Preventive Maintenance Techniques

- Understanding the basics of preventive maintenance
- Creating a preventive maintenance plan
- Developing maintenance schedules for different equipment types
- Tools and techniques for inspecting and maintaining equipment
- How to document preventive maintenance activities and outcomes
- Key performance indicators (KPIs) for evaluating PM effectiveness
- Best practices for maintaining equipment health and reducing unplanned downtime

• 03 DAY THREE

Predictive Maintenance Technologies

- Overview of predictive maintenance technologies
- How sensors and IoT enable real-time monitoring
- Vibration analysis, thermography, and ultrasonic testing techniques
- Machine learning and AI in predictive maintenance
- Data collection and analysis for predictive maintenance
- How predictive maintenance helps in identifying potential failures before they occur

- Case studies of successful PdM implementations in various industries

• 04 DAY FOUR

Implementing Preventive and Predictive Maintenance Programs

- Steps to design and implement a successful PM and PdM program
- Choosing the right equipment for predictive and preventive maintenance
- Integrating PM and PdM strategies with existing operational systems
- Resource allocation and budget management for maintenance programs
- Importance of training staff and developing skillsets
- How to manage and track maintenance tasks efficiently
- Setting up feedback loops and performance reviews to improve maintenance programs

• 05 DAY FIVE

Monitoring, Evaluating, and Improving Maintenance Programs

- Techniques for monitoring the effectiveness of PM and PdM programs
- Tools for performance tracking and reporting maintenance outcomes
- How to analyze data for continuous improvement
- Reviewing and refining maintenance strategies based on operational feedback
- Handling corrective actions and maintenance challenges
- The role of continuous improvement in optimizing maintenance programs

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
June 23, 2025	June 27, 2025	5 days	4250.00 \$	UAE - Dubai
Aug. 18, 2025	Aug. 22, 2025	5 days	5950.00 \$	USA - Los Angeles
Dec. 28, 2025	Jan. 1, 2026	5 days	4250.00 \$	KSA - Riyadh